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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,003	10/25/2001	Ramasamy Krishnan	C-390	5952

7590 08/20/2003
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FORT LEE, NJ 07024

EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 08/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/026,003	KRISHNAN ET AL.	
	Examiner	Art Unit	
	Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-12 is/are rejected.
- 7) ☐ Claim(s) 7, 8, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) <u>Page No(s) 4/23/03</u> | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6 and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Mihoya et al. (U.S. 5,719,206).

Mihoya et al. disclose water-based gravure ink comprising aqueous hydroxy-functional acrylic resin and pigment whose surface is modified with alkoxysilane. It is disclosed that the functional group of the acrylic resin reacts with the alkoxysilane. The acrylic resin is obtained from monomers including methacrylic acid ester and acrylic acid ester. It is disclosed that the pigment whose surface is modified with alkoxysilane is present in an amount of 15-70% and comprises 100 parts pigment and 0.1-15 parts alkoxysilane. Thus, it is calculated that there is present in the ink approximately $13(0.87)(15)-69(0.999)(70)\%$ pigment. Further from example 9, it is calculated that the ink comprises 36.5% water $((0.7)(45)+5)/100$ and 45% acrylic resin. There is also disclosed a printing process which includes gravure printing of the above ink (col.1, lines 5-10 and 47-61, col.2, lines 3-14 and 65, col.3, lines 1-7, 33-39, 43-, 50-52, and 65, col.4, lines 20-25, col.7, lines 27-53, col.10, lines 27- 28, and example 9).

In light of the above, it is clear that Mihoya et al. anticipate the present claims.

Allowable Subject Matter

3. Claims 7-8 and 13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 7-8 and 13-14 would be allowable if re-written in independent form as described above for the following reasons.

Mihoya et al. (U.S. 5,719,206) disclose water-based gravure ink comprising aqueous hydroxy-functional acrylic resin and pigment whose surface is modified with alkoxysilane where the functional group of the acrylic resin reacts with the alkoxysilane. It is disclosed that the acrylic resin is obtained from monomers including methacrylic acid ester and acrylic acid ester. However, there is no disclosure or suggestion that the acrylic resin is obtained from styrene and thus, no disclosure or suggestion of styrene/acrylic polymer as required in claims 7-8 and 13-14. Further, while Mihoya et al. disclose the use of alkoxysilane such as γ -aminopropyltriethoxysilane, there is no disclosure or suggestion of using alkoxysilane of the presently claimed formula found in each of claims 8 and 14.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Higuchi et al. (U.S. 4,404,318) disclose pigment dispersion comprising dispersing agent and dispersant which is reaction product of hydroxy functional acrylic resin and alkoxysilane. However, there is no disclosure of water-based medium or gravure ink.

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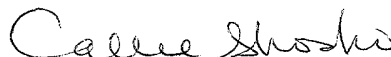
GB 2,212,163 discloses curable composition comprising reaction product of hydroxy functional resin and alkoxysilane. However, there is no disclosure of gravure ink and no disclosure that the composition is water-based.

Matsuno et al. (U.S. 6,072,008) disclose coating composition comprising reaction product of hydroxy functional resin and alkoxysilane. However, there is no disclosure that the composition is used as gravure ink and no disclosure that the composition is water-based.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
8/14/03